Prepared with support from the Nevada Division of Minerals

OPEN-FILE REPORT 15-4
PRELIMINARY GEOLOGIC MAP OF THE HEELFLY CREEK QUADRANGLE AND ADJACENT PARTS OF THE TENT MOUNTAIN, SOLDIER PEAK, AND SECRET VALLEY QUADRANGLES, ELKO COUNTY, NEVADA
*Text accompanies map*

# PRELIMINARY GEOLOGIC MAP OF THE HEELFLY CREEK QUADRANGLE AND ADJACENT PARTS OF THE TENT MOUNTAIN, SOLDIER PEAK, AND SECRET VALLEY QUADRANGLES, ELKO COUNTY, NEVADA

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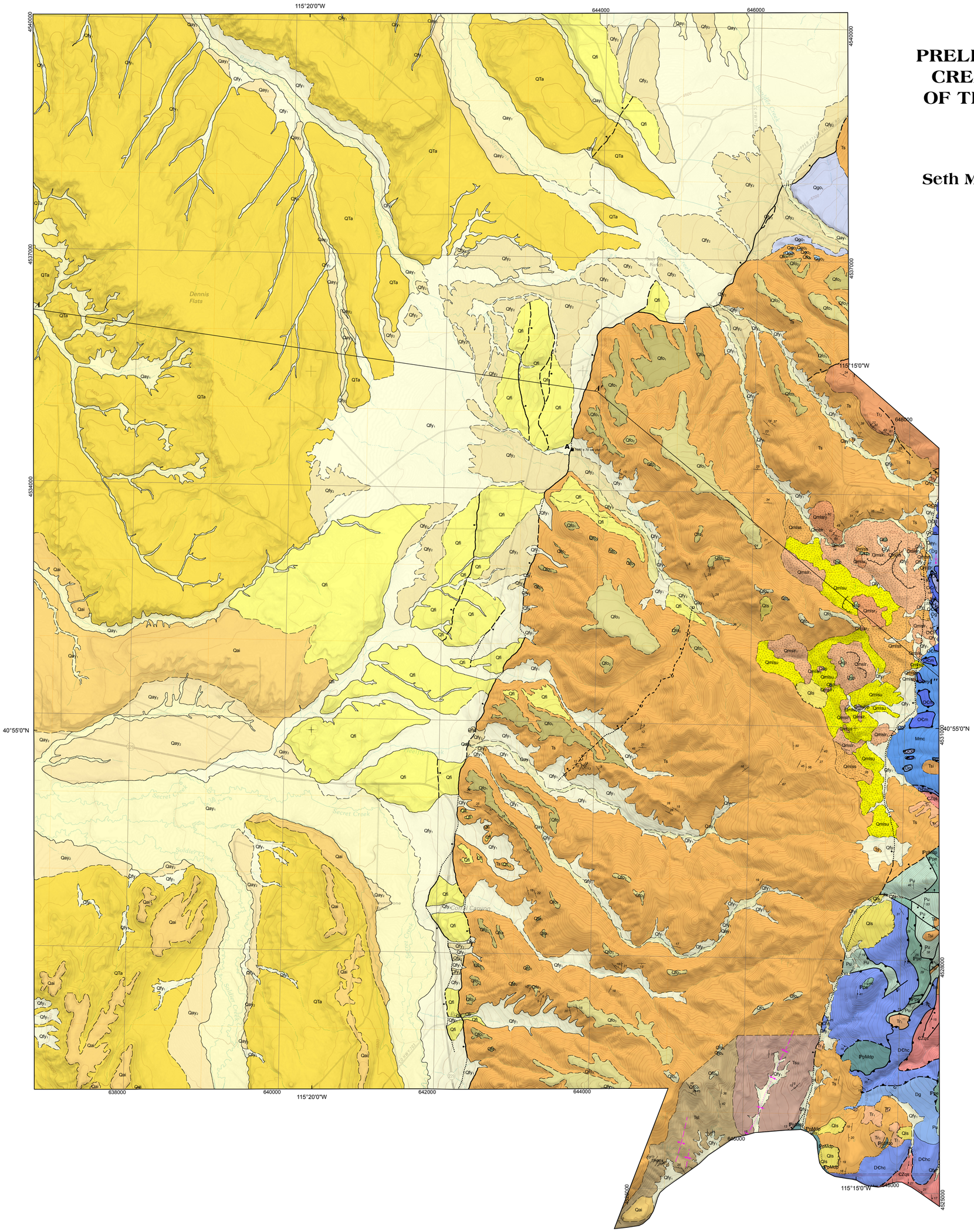
Nevada Bureau of Mines and Geology

2015




## QUATERNARY DEPOSITS

- $Qfy_1$ **Youngest alluvial-fan deposits (late Holocene)**
- $Qay_1$ **Youngest active alluvium (late Holocene)**
- $Qfy_2$ **Young alluvial-fan deposits (early to mid-Holocene)**
- $Qay_2$ **Young alluvium (early to mid-Holocene)**
- $Qfy_3$ **Young alluvial-fan deposits (latest Pleistocene to early Holocene)**
- Qfi **Intermediate-aged alluvial-fan deposits (late Pleistocene)**
- Qai **Intermediate-aged alluvium (late Pleistocene)**
- $Qgo_1$ **Glacial outwash deposits, Angel Lake-aged? (late Pleistocene)**
- $Qgo_2$ **Glacial outwash deposits, Lamoille-aged? (late Pleistocene)**
- Qsp **Sag pond (Pleistocene to Holocene)**
- Qls **Landslide deposits (Pleistocene to Holocene)**
- Qmlsu **Mega-landslide deposits (mid-Pleistocene?)**
- $Qmlsr_1$, $Qmlsr_2$ **Slide block of porphyritic rhyolite in Quaternary mega-landslide deposit (mid-Pleistocene?)**
- Qmlsbp **Slide block of porphyritic basalt in Quaternary mega-landslide deposit (mid-Pleistocene?)**
- Qmlss **Slide block of tuffaceous sedimentary rock in Quaternary mega-landslide deposit (mid-Pleistocene?)**
- $Qfo_1$ **Older alluvial-fan deposits (mid-Pleistocene?)**
- $Qfo_2$ **Older alluvial-fan deposits (mid-Pleistocene?)**
- $Qfo_3$ **Older alluvial-fan deposits (mid-Pleistocene?)**
- $Qfo_4$ **Older alluvial-fan deposits (mid-Pleistocene?)**
- QTa **Older alluvium (Pliocene to early Pleistocene?)**

## TERTIARY ROCKS

- Tb **Aphyric basaltic dike**
- $Tr_1$, $Tr_2$ **Porphyritic rhyolite [Jarbridge-type rhyolite] (Miocene)**
- Ts: Tsu, Tsl **Miocene and older sedimentary sequence locally divided into: Volcaniclastic sedimentary sequence [Humboldt Formation] Sandstone, shale, conglomerate**
- Tsi **Undivided silicified rocks (Miocene?)**

## NONMETAMORPHOSED PALEOZOIC ROCKS

- Pu **Permian undivided**
- PPe **Ely Formation (Pennsylvanian)**
- PPpMdp **Diamond Peak Formation (Pennsylvanian to Mississippian)**

## METAMORPHOSED PALEOZOIC ROCKS

- Mmc **Metaclastic rocks undivided (Carboniferous?)**
- Dg **Metamorphosed Guilmette Formation (Devonian)**
- DOd **Dolomite marble (Ordovician to Devonian)**
- Oe **Metamorphosed Eureka Quartzite (Ordovician)**
- O€m **Impure marble (Ordovician to Cambrian)**
- D€hc **Horse Creek Assemblage (Devonian to Cambrian)**
- €Zqs **Quartz-schist-gneiss unit (Cambrian to upper Precambrian)**

**Contact** Solid where certain and location accurate, dashed where approximate, dotted where concealed.

**Contact** Type unknown

**Normal fault** Solid where certain and location accurate, dashed where approximate, dotted where concealed; queried if identity or existence uncertain. Ball on downthrown side. Arrows indicate motion in cross section.

**Master detachment fault** Dashed where approximate.

**Low-angle normal fault** Solid where certain and location accurate, dashed where approximate, dotted where concealed; queried if identity or existence uncertain.

**Anitcline** Dashed where approximate.

**Syncline** Dashed where approximate, dotted where concealed.

**Head or main scarp of landslide** Solid where sharp contact, dashed where indistinct. Hachures point downscarp.

**Sag pond or closed depression on landslide**

**Strike and dip of bedding**
41 Inclined

**Strike and dip of foliation in igneous rock**
33 Inclined

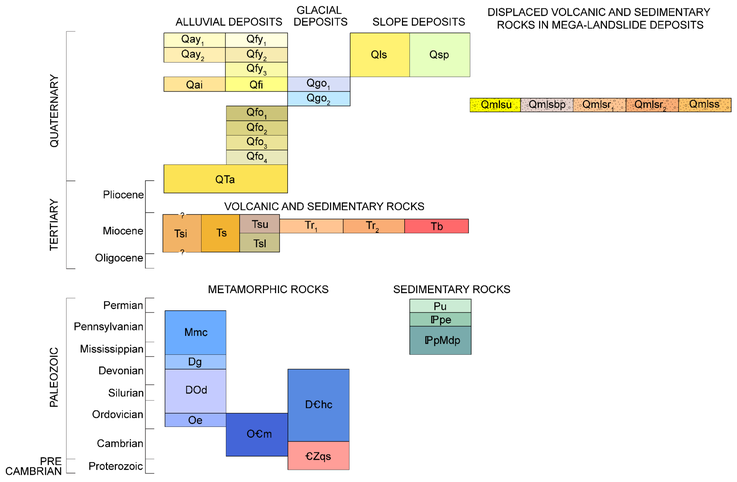
**Strike and dip of foliation in metamorphic rock**
27 Inclined

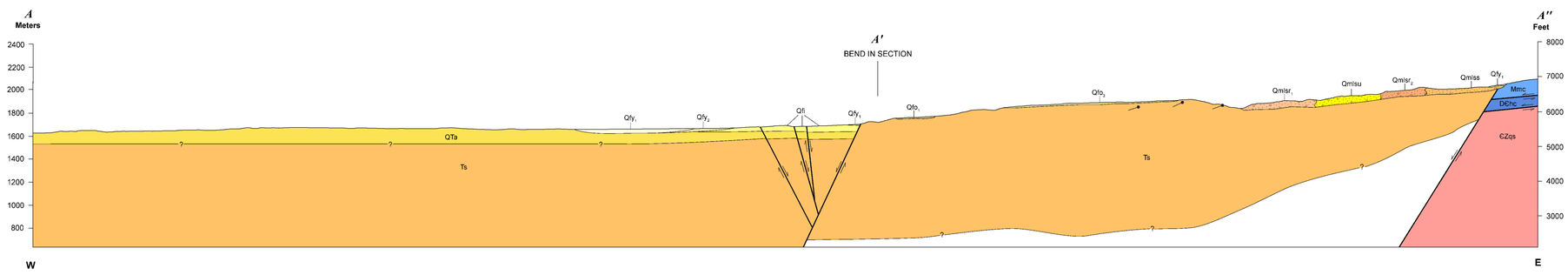
**Trend and plunge of fold hinge**
Anticline

**Radiocarbon sample location and age**
A 7500 ± 70 cal ybp (Wesnousky and Willoughby, 2003)

**Apparent dip of bedding in cross section**
Bedding in sedimentary rocks

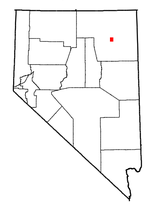
A — A' **Line of cross section**




Note: Quaternary deposits with estimated thickness less than 10 m not shown on cross section

Map location



Adjoining 7.5' quadrangle names

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

1 Morgan Hill
2 Deeth
3 Herder Creek
4 Halleck
5 Heelfly Creek
6 Tent Mountain
7 Halleck SW
8 Soldier Peak
9 Secret Valley

Scale 1:24,000

0 0.5 1 kilometer

0 0.5 1 mile

0 1000 2000 3000 4000 5000 feet

CONTOUR INTERVAL 20, 40 FEET

Projection: Universal Transverse Mercator, Zone 11, North American Datum 1983 (m)

Base map: U.S. Geological Survey Heelfly Creek, NV 7.5' quadrangle (2012)
U.S. Geological Survey Tent Mountain, NV 7.5' quadrangle (2012)
U.S. Geological Survey Soldier Peak, NV 7.5' quadrangle (2012)
U.S. Geological Survey Secret Valley, NV 7.5' quadrangle (2012)




UTM GRID AND
2012 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

***Suggested Citation:***
Dee, S.M., Dering, G.M., Henry, C.D., 2015, Preliminary geologic map of the Heelfly Creek quadrangle and adjacent parts of the Tent Mountain, Soldier Peak, and Secret Valley quadrangles, Elko County, Nevada: Nevada Bureau of Mines and Geology Open-File Report 15-4, scale 1:24,000, 5 p.

See accompanying text for full unit descriptions and references for this map.

Nevada Bureau of Mines and Geology
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DRAFT
Preliminary geologic map
Has not undergone office or field review
Will be revised before publication

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